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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Naofumi MAGARIDA et al.

Application No. New U.S. Patent Application

Filed: September 26, 2006

Docket No.: 129549

For: DEVICE AND METHOD FOR CONTROLLING ENGINE

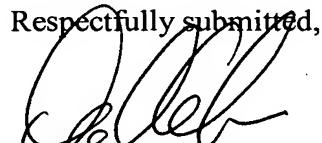
**TRANSLATION OF THE AMENDMENTS
UNDER PCT ARTICLE 19 (35 USC 371(c)(3))**

Commissioner for Patents
P.O. Box 1450
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Sir:

Attached hereto is a translation of the amendments of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)). The attached translated material replaces the claims.

Respectfully submitted,


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Amendment under article 19

CLAIMS

1. (Deleted)

2. (Amended) A device for controlling an engine, comprising:

combustion noise suppression means for suppressing combustion noise of a combustion chamber; and

control means for controlling the combustion noise suppression means, wherein

the engine is connected to manual transmission means,

the device further includes control amount setting means for setting a control amount of the combustion noise suppression means so that target combustion noise characteristics corresponding to a required amount of acceleration or deceleration exhibit a slower change in combustion noise than combustion noise characteristics corresponding to output characteristics of the engine over before and after acceleration or deceleration,

the target combustion noise characteristics being set so that constant-combustion-noise lines, which represent on a coordinate plane with the speed and torque of the engine being coordinate axes distribution of combustion noise values of the engine within a predetermined range on the coordinate plane, provide a smaller absolute value of a

speed variation relative to a torque variation from any point on the coordinate plane than constant-output lines which represent on the coordinate plane distribution of output values of the engine within the predetermined range, and

the control means controls the combustion noise suppression means according to the control amount set by the control amount setting means.

3. (Amended) A device for controlling an engine, comprising:

combustion noise suppression means for suppressing combustion noise of a combustion chamber; and

control means for controlling the combustion noise suppression means, wherein

the engine is connected to automatic transmission means,

the device further includes control amount setting means for setting a control amount of the combustion noise suppression means so that target combustion noise characteristics corresponding to a required amount of acceleration or deceleration exhibit a slower change in combustion noise than combustion noise characteristics corresponding to output characteristics of the engine over before and after acceleration or deceleration,

the target combustion noise characteristics being set so that constant-combustion-noise lines, which represent on

a coordinate plane with the speed and torque of the engine being coordinate axes distribution of combustion noise values of the engine within a predetermined range on the coordinate plane, provide a larger absolute value of a speed variation relative to a torque variation from any point on the coordinate plane than constant-output lines which represent on the coordinate plane distribution of output values of the engine within the predetermined range, and

the control means controls the combustion noise suppression means according to the control amount set by the control amount setting means.

4. The device for controlling an engine according to claim 2 or 3, wherein

the predetermined range is such that the speed and torque of the engine are both under the respective predetermined values.

5. (Amended) The device for controlling an engine according to claim 2 or 3, further comprising:

required output calculation means for calculating a required output based on the required amount of acceleration or deceleration;

transition time calculating means for calculating transition time before the required output is reached;

judgment means for judging whether a difference of a

current output and the required output equals to or is greater than a predetermined value; and

correction means for correcting the control amount based on the transition time so that a change in the combustion noise is slower if the difference equals to or is greater than the predetermined value.

6. A method for controlling an engine, comprising:

a setting step of setting a control amount of combustion noise suppression means for suppressing combustion noise of a combustion chamber, said setting step sets, in case of a vehicle equipped with manual transmission means, the control amount so that constant-combustion-noise lines, which represent on a coordinate plane with the speed and torque of the engine being coordinate axes distribution of combustion noise values of an engine within a predetermined range on the coordinate plane, provide a smaller absolute value of a speed variation relative to a torque variation from any point on the coordinate plane than constant-output lines which represent on the coordinate plane distribution of output values of the engine within the predetermined range, and said setting step sets, in case of a vehicle equipped with automatic transmission means, the control amount so that the constant-combustion-noise lines provide a larger absolute value of a speed variation relative to a torque change from any point on the coordinate plane than the

constant-output lines; and

a control step of controlling the combustion noise suppression means according to the set control amount.